

Life Course and Women's Health

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GIRLS' AND WOMEN'S HEALTH ACROSS THE LIFESPAN CONFERENCE

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Presentation Overview

• Introduction to Life Course theory and science

• Moving from theory to practice

• What does it mean for girls and women?

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Introduction to Life Course Theory

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LIFE COURSE 101

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What Life Course Is ... and Isn't

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- Is a theory, perspective, framework
- Not a model
- No single, definitive text
- Reflects a convergence of ideas, informed by multiple sources

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Key Questions

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MCH Life Course literature focuses on 2 key Qs:

- Why do health disparities exist and persist across population groups?
- What are the factors that influence the capacity of individuals or populations to reach their full potential for health and well-being?

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What Life Course Is ... and Isn't

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- Life Course is a theory or perspective that seeks to **understand, explain, and improve** health and disease patterns across population groups.

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Social Determinants & Health Equity Roots

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How does LC interface with social determinants and health equity models/concepts?

- LC literature reflects and incorporates both.
- LC inquiry is rooted in both.

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Key Terms

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- Pathways and Trajectories
- Risk and Protective Factors
- Early Programming
- Cumulative Impact
- Critical or Sensitive Periods

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Life Course Perspective

Lu MC, Halfon N. Racial and ethnic disparities in birth outcomes: a life-course perspective. *Maternal Child Health J.* 2003;7:13-30.

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Life Course Core Concepts

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- Today’s experiences and exposures determine tomorrow’s health.
- Health trajectories are particularly affected during critical or sensitive periods.
- The broader environment –biologic, physical, and social –strongly affects the capacity to be healthy.
- Inequality in health reflects more than genetics and personal choice.

Fine, Kotelchuck, Address, Pies 2009

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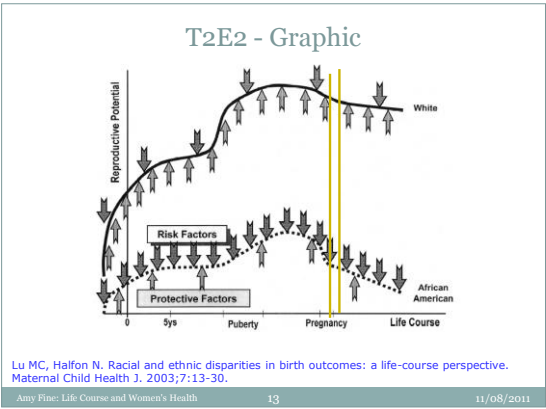
T2E2: The Real “Cliff Notes”

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- **Timeline** – Today’s experiences and exposures determine tomorrow’s health.
- **Timing** -- Health trajectories are particularly affected during critical or sensitive periods.
- **Environment** –The broader environment –biologic, physical, and social –strongly affects the capacity to be healthy.
- **Equity** –Inequality in health reflects more than genetics and personal choice.

Fine and Kotelchuck, MCHB Concept Paper, 2010

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Critiques and Questions

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- Early programming - too deterministic?
- Too front-loaded? What does LCT tell us about later life stages?
- What does LCT tell us about CSHCN?
- How does LCT fit with clinical care?
- If it is all connected over a life time, how do we make the case for a focus on MCH?

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Addressing Key Life Course Concerns

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- **Interactive processes** – The development of health over a lifetime is an interactive process, combining genes, environments and behaviors.
- **Lifelong development/lifelong intervention** – Throughout life and at all stages, even for those whose trajectories seem limited, risk factors can be reduced and protective factors enhanced, to improve current and subsequent health and well-being.
Fine and Kotelchuck, 2010

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Life Course is a Developing Theory

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- We need to add to and adjust our theory with new knowledge.
- We need input from all levels: practice level, service delivery level, systems level, and program and policy levels.

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Summary thoughts on LC Perspective

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Life Course is a framework that reflects new & renewed understandings of ...

- the interplay of genes, environment, and personal choices;
- the importance of earliest experiences, and subsequent critical and sensitive periods of development;
- the cumulative, and longitudinal nature of risks and protective factors ;

...and how these impact the health and development of individuals and populations.

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LIFE COURSE SCIENCE

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Is Life Course Old or New?

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- LCT marries long-term MCH concepts with new science – from health and related fields
 - Reproductive life course models
 - Chronic illness models
 - Genetics/epi-genetics
 - Child development models

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New Science from Health & Related Fields

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- **Lu/Halfon** – link disparities in birth outcomes to differential developmental trajectories of the mother, based on early life experiences (programming) and cumulative stress.
- **Barker Hypothesis** – links LBW to increased risk of heart disease, diabetes
- **Felitti's ACE Study** – links early childhood adverse events to increased risk of obesity, heart disease, diabetes, depression
- **Neurons to Neighborhoods, NAS** – early environments, nurturing relationships, parents are the “active ingredients” in healthy brain development – from the earliest ages forward.
- **Epi-genetics** – links environmental triggers to gene expression.

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The New 21st Century Scientific Basis for the MCH Life Course

- Provides an understanding of how the social environment gets built into or embodied into our physical bodies
- Bridges our intuitive understanding of the social causes of ill health (poverty, malnutrition, stress) with our understanding of its clinical manifestations and treatment
- Incorporates our growing scientific understanding of the biology of human development into our health trajectories
- Focuses on root causes of illness and disparities

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Moving from Theory to Practice

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NEW WAYS TO ORGANIZE HEALTH SERVICES AND SYSTEMS

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Moving from Theory to Practice

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- To date, MCH Life Course theory has focused primarily on causal analysis, with limited guidance for social strategy or implementation.
- But, across the country states, counties, communities are starting to make the theory operational.

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Aligning Practice with LCT

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- LCT tells us that interventions that reduce risks and increase protective factors can change the health trajectory of individuals and populations.
- LCT tells us that intervening early and during sensitive periods can change outcomes.
- These ideas are not inconsistent with the current practice of medicine and of public health.

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Aligning Practice with LCT

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But, LCT also...

- Greatly expands the opportunities for intervention:
 - a much broader set of venues and partners,
 - over a much longer timeline
- Suggests the need for better linkage (vertical, horizontal, temporal)
- Encourages us to rethink and realign some of the current strategies and add new ones.

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What LCT Means for MCH Practice...

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Barbara Ferrar, Boston Health Commissioner:

- Multiple time points for intervention
- Expanded settings for intervention
- Policy is important at local, state and national levels

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What LC Means for Policy

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Debbie Allen, 2008

- Avoid the allure of categorical solutions
- Focus on upstream population needs
- Assure that needed programmatic collaboration happens
- Partner with all sectors
- Invest in data for policy decisions
- Install visionary leadership

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Examples from the Field

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- Western MCH Nutrition Partners
- Northern Manhattan Perinatal Project
- Alameda County Public Health Department
- California Department of Health – MCAH Division

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Western MCH
Nutrition
Partners

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Dennis Johnson,
University of
Washington
Dana Lockamy,
University of New
Mexico
Leslie Cunningham-
Sabo, University of
Colorado, Boulder



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Nutrition and the Life Course Framework

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- Started with T2E2 framework
- Used examples from the field of nutrition focusing on the role and impact of nutrition throughout the life course and in relation to specific conditions.
- Highlighted WIC program as an example of a LC approach.
- Developing a longer paper on Life Course and nutrition.

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Timeline: Nutritional Factors and Development of Obesity

- **Maternal Weight before Pregnancy**
 - Strong predictor for childhood obesity
 - Obese women have higher rates of LGA births
 - High energy intake early in life affects fat cell development and brain's ability to regulate appetite
 - Obese child → more likely to become obese adult

From: Western MCH Nutrition Partners



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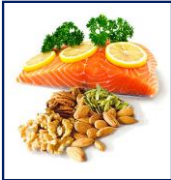
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Timing: Critical Nutrients during Critical Periods of Development

Example: Essential Fatty Acids (EPA, DHA)

- **Preconception**
 - Improved embryo morphology
- **Pregnancy**
 - Important structural components of cell membranes, central nervous system, retinal cell membranes
 - Increased length of gestation, more AGA birthweights
- **Infancy**
 - Improved visual and cognitive development, maturity in sleep patterns, motor activity in infants

From: Western MCH Nutrition Partners



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Environment

- Social, economic and cultural environments impact nutritional intakes in homes, schools and communities
- Social determinants of health and interactions of people with environment affect the potential to shape diets consumed over time and across generations –affects on health outcomes
- During childhood, supportive nutrition environments important to ameliorate earlier nutritional insults and protect against risk of obesity

From: Western MCH Nutrition Partners

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Equity

- **Food Insecurity**
 - Association between obesity and food insecurity
 - Pregnancy: associated with pregravid obesity, higher gestational weight gain, gestational diabetes
 - Children: report poor health, experience depression, anemia, lower achievement in school
 - Hunger in childhood associated with lower educational attainment and household income as adults

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T₂ - E₂ and WIC

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- **Timing:** WIC serves mothers and children at the most sensitive times.
- **Equity:** WIC serves the most vulnerable families
- **Timeline:** benefits of WIC persist across the lifespan
- **Environment:** WIC brings healthy foods into communities.

From: Western MCH Nutrition Partners

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The MCAH Maternal Health Framework

CONNIE MITCHELL, MD, MPH
BRANCH CHIEF, POLICY DEVELOPMENT
MATERNAL, CHILD AND ADOLESCENT
HEALTH DIVISION

MCAH ACTION EDUCATION DAY
OCTOBER 21, 2010

Maternal Health Framework II: linking three constructs			
Prevention + Life Course Social Ecology Model	I. Maximize health prior to pregnancy	II. Maintain health during pregnancy	III. Address health issues that arise in pregnancy
A. Individual			
B. Family/ Support Sys			
C. Community			
D. Social Milieu			

Maternal Health Framework III– How did MCAH programs fit the framework?			
Prevention Soc Ecology	Maximize health prior to pregnancy	Maintain health during pregnancy	Address health issues that arise in pregnancy
Individual	Preconception Care	BIH	MQI
Family/ Support Sys			
Community		LAMH	CA-PAMR CMQCC
Social Milieu			

Maternal Health Framework: Examples of contributing factors for maternal health			
Prevention + Life Course Social Ecology Model	Maximize health prior to pregnancy	Maintain health during pregnancy	Address health issues that arise in pregnancy
Individual	Basic repro. health literacy Self Perception of health as good or excellent	Appropriate wt gain	Self Care for GDM
Family/ Support Sys	Has a primary support person Safe home	Birthing and parenting classes	Bereavement support if needed
Community	Access to fresh fruits and vegs School based sex & relationship ed	Access to prenatal care & education Occupational safety standards in preg	OB emergency drills and protocols OB QI efforts
Social Milieu	Access to family planning services Low levels of poverty	Legal protections for maternity leave	Regs to support regionalized levels of maternity care State PAMR review

Moving from a conceptual framework to a functional framework – with examples

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Contributing Factors (CF) for Maternal Health	Programs or Policy to address CF	How progress measured?
Basic reproductive health literacy	Department of Education required sex education curriculum for K-12 Family Resource Centers	Required to pass for graduation? ?
Self perception of health is good/excellent	Black Infant Health promotes empowerment and self-efficacy through reproductive health knowledge	BIH program measures; CWHHS and CHHS have questions on this

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Results/Conclusions

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- A framework for maternal health identified gaps in programs and outcome analysis
- The framework provided a useful tool for MCAH program and policy development
- The framework was a visual tool for understanding the connectivity and relatedness of programmatic efforts
- The framework has been well received by external partners.

FROM: C. MITCHELL, OCT. 2010

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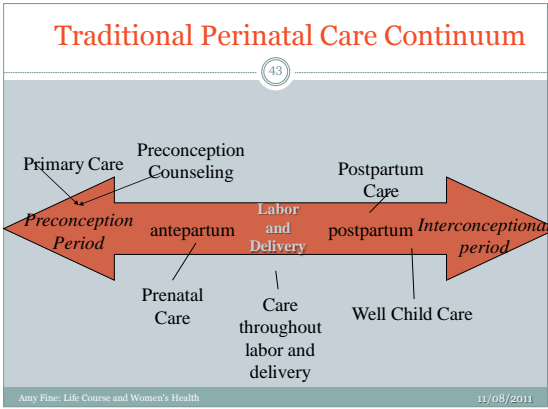
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Creating an MCH Life Course Organization

Northern Manhattan Perinatal Partnership
Mario Drummonds, CEO



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Working Definition of a MCH Life Course Organization

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An MCH Life Course Organization is an entity (local/state) that develops the capacity over time to deliver integrated, continuous and comprehensive health and social services and support to women and their family members from the womb to the tomb.

From: M Drummond, APHA, 2011

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MCH Life Course Organization

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- Builds **programmatic capacity** within the agency at each stage of a woman's life course to manage her health over the life course (Axis 1).

From: M Drummond, APHA, 2011

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New MCH Life Course Continuum

Axis 1

Centering Pregnancy	Child Abuse Prevention	Latch-Key Program	Managing Relationships	Health Policy Activities	Reproductive Social Capital	Harlem Weight Watchers
Infant Care	School Readiness	Fitness & Health Activities	Pregnancy Prevention	Women's Health Protocol	Depression Group Work	Women's Health Protocol
Perinatal Care	UPK	Beacon School	College Prep	Perinatal Care	Reproductive Life Planning	Specialty Care
Harlem Birthing Center	Early Head Start / Head Start	Health / Life Stories Telling	Preconception Inter-conceptional Care	Chronic Disease	Chronic Disease Management	Chronic Disease
Birth	Early Childhood	Pre-Teen	Teen	Young Adult	Women ≥35	Senior Citizens

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MCH Life Course Organization

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Swims up-stream from individual interventions and designs strategies and actions at the group, organizational, community and policy levels to transform social determinants to poor health (Axis 2).

From: M Drummonds, APHA, 2011

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Life Course Approach to Women's Health

Assessment Tool- City of Harlem

Social Determinants of Health	Public Policy Initiatives							
	Community/ Environmental							
	Organizational							
	Group/ Interpersonal							
	Individual							
		Birth	Early Childhood	Pre-teens	Teens	Young Adult	Women ≥35	Seniors

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Source: Justice Matters

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MCH Life Course Organization Social Determinants of Health Axis 2				
Public Policy Initiatives		Economic Empowerment Zone	Supermarket Zone Expansion Policy	NYC Affordable Housing Policy
Community Environmental Impact		St. Nick Tenant Organizing	Food & Fitness Coalition	Affordable Housing Organizing
Organizational Impact		Healthy Start Consortium	Diabetes Prevention Coalition	Harlem Works Job Readiness
Group/ Interpersonal Impact		Centering Pregnancy	Baby Mama's Club	Consumer Involvement Organization
Individual Impact		OB/GYN Medical Homes	Case Management	Depression Screening & Treatment

MCH Life Course Organization

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⦿ If unable to build internal capacity **collaborates** with outside agencies and systems to create an integrated system of care to manage a woman’s health.

From: M Drummonds, APHA, 2011

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MCH Life Course Organization

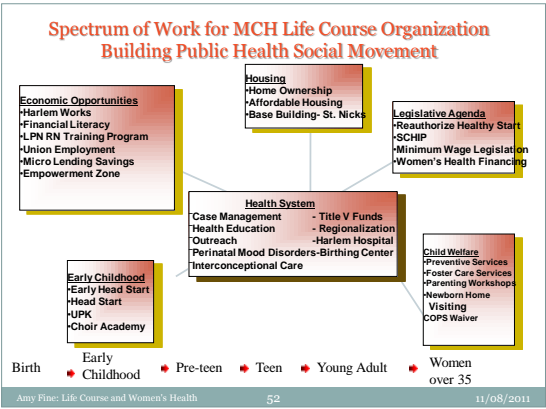
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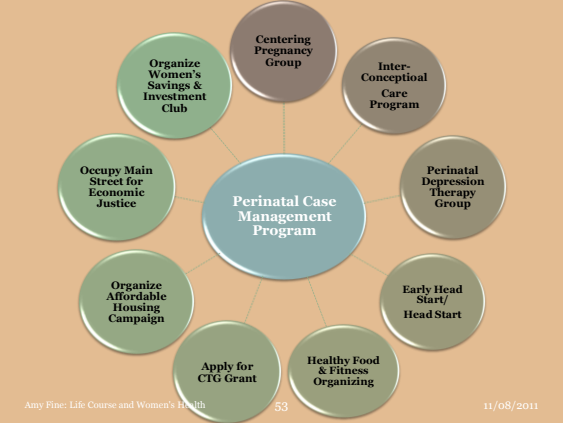
⦿ Unlike many maternal and child health programs that only seek to influence the health system by developing and executing a local health system action plan, a MCHLCO **seeks to influence and lead their local and regional economic, political, housing, child welfare, early childhood and middle school systems of care.**

From: M Drummonds, APHA, 2011

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MCH Life Course Community System

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Alameda County, California

AC Public Health
AC First Five
AC Help Me Grow
AC Project Launch
And more

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What does LC mean for MCH and Women's Health?

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- Transform the way we view MCH and women's health programs and services
- Facilitate shared planning across multiple sectors
- Expand our circle of agencies with which to partner
- Help us to do more with less within these tight budget times.

From: Malin & Fine.MCAH Action Education Day, 5/19/11

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Characteristics of Projects Operating from a Life Course Perspective

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- Go beyond individual programs
- Focus on system change and integration
- Focus on changing physical, social, economic and policy environments
- Take a whole woman, whole child, whole family, whole community approach – to effect change across the population

From: Malin & Fine.MCAH Action Education Day, 5/19/11

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Alameda County Public Health Department

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- Place Matters Project
 - Focus on social determinants of health and racial equity
 - National learning collaborative
 - Study groups within health dept.
 - Expanded to work with parks and recreation, land use planning, and more.

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Alameda County Public Health Department

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- **Building Blocks Collaborative (BBC)**
 - Started as Perinatal Systems Re-design
 - Morphed into an external community collaborative with a broader purpose
 - Connected to an internal Life Course System Design Committee (LSDC)
- **Implications for the ACPHD MPCA program**
 - Changes/additions to existing programs (home visitors, assessment tools, staff involvement in collaboratives)
 - “Food to Families” – Kresge grant
 - Response to State’s RSI for Home Visiting monies

From: Malin & Fine.MCAH Action Education Day. 5/19/11

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Alameda County First 5

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- **Children’s SART (Screening, Assessment, Referral and Treatment)**
 - Universal screening and messages for all children and families
 - Prevention/promotion
 - Early identification
- **Help Me Grow (HMG)**
 - Centralized telephone access point
 - Child healthcare provider outreach
 - Community provider outreach and networking
 - Data collection and analysis
- **Home Visiting Program**
- **Project LAUNCH**

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Connecting All the Dots

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graph LR; A["• Environmental changes  
• ↑ Opportunity  
Community Change, Universal Opportunity"] --> B["• Promotion  
• Early Identification  
Universal Services"]; B --> C["• Intervention  
• Treatment  
Tiered Services"]; C --> D["• Children  
• Families  
Better Outcomes"]; D --> A;
```

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Connecting Services within a Life Course Community System – What's needed?

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- Efficient and effective two-way linkages between services and systems of care.
- Develop a common language/framework
- Shared planning – across sectors, across disciplines
- Shared set of outcomes – shared accountability for results
- Shared data, monitoring and analytic capacity
- Be at the table for broader community change

From: Malin & Fine.MCAH Action Education Day. 5/19/11

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Applying LCT to Girls' and Women's Health

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YOUR THOUGHTS AND EXPERIENCES

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Where Do We Start?

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- Initiatives or projects that are rooted in the life course perspective can take different forms
 - Integrating new approaches/content to traditional services
 - Coordinating and streamlining existing services
 - Making alliances with "non-traditional" partners to transform communities so that women, children and families can thrive
- We are all at different stages of life course implementation

From: Malin & Fine.MCAH Action Education Day. 5/19/11

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Moving from Theory to Practice

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- The work ahead of us going forward is to explore how LCT might be applied:
 - in your field,
 - in your programs and systems of care,
 - in relation to others working to improve the health and well-being of girls and women.

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Questions for Discussion

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- What kind of life-course influenced strategies most appeal to you and/or would be most realistic to implement in your program or agency?
- Where are you in developing or implementing this work in your program or agency? What's worked? What's been challenging?
- What have been your biggest realizations about this work to date?

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Thank you

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